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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ABRAHAM, AMJAD A

ART UNIT

PAPER NUMBER

1791

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,730	Applicant(s) ITO, KAORI	
	Examiner AMJAD ABRAHAM	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5 and 6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,5 and 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's remarks and amendments, filed on September 29, 2009, have been carefully considered. Claims 1-3 and 5-6 have been amended. Claims 1-3 and 5-6 are still pending.

New Grounds of Rejections based on applicant's amendments filed on September 29, 2009

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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1. *Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamaoka (Japanese Patent Publication JP 11028856) in view of Aoki et al.*

(Japanese Patent Publication JP 02001239779 A) and in further view of Williams et al. (US Pre-Grant Publication 2004/0227267).

2. Regarding claim 1, Yamaoka teaches a decorating method used to impart and/or print a design print layer onto a resin molded article. **(See paragraphs 0001-0003).**

a. Yamaoka further teaches:

i. A step of forming a transfer sheet by forming an ink receiving layer on a base material sheet.

(1) **(See drawings 1-2 showing a transfer sheet (part #1) with a peeling layer (part #3 corresponds to base material sheet) and an ink absorbing layer (part #6)**

ii. A step of inserting the transfer sheet into a cavity of a metal mold where the ink receiving layer faces a room of the mold and the step of injecting the resin. **(See drawing 5 showing the transfer sheet being placed into a mold and injected with resin).**

iii. Thereby molding a base which is attached to the transfer sheet. **(See drawing 5 and paragraph 0001-0003 disclosing the injection molding of a resin material onto the transfer sheet in order to impart the ink receiving layer onto the resin molded product.)**

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- iv. A step of ejecting the mold and peeling (exfoliating) the base material from transfer sheet leaving molded product and ink layer. **(See paragraph 0003).**
- b. With respect to claim 1, Yamaoka does not expressly teach wherein a step of performing printing to said ink receiving layer after the injection molding process and ejection of molded product.
- c. However, Yamaoka teaches, that post mold printing is not used in their method only because their process deals with molded products that have curved surfaces. **(See description of prior art or paragraph 0002).**
- v. It is well known in the art that a card like a credit card can be printed on even after the final card is made. Yamaoka teaches this well known idea as it clearly states that when dealing with flat molded articles, (which can include credit cards) one can print on the article. **(See description of prior art or paragraph 0002).** Therefore, it would have been obvious to one having the ordinary skill in the art to alter the teachings of Yamaoka to include post mold printing when making a card base as claimed since card like credit cards are typically flat.
- vi. Furthermore, post mold printing can include printing by hand. This is well known in the art as almost every credit card has an area which can be printed on the back 9 for example signature section).
- d. With respect to claim 1, Yamaoka does not explicitly teach the use of a transfer sheet in the manufacture of a card.

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e. However, Aoki teaches the use of transfer sheet molding in the manufacture of a card. **(See claim 1 and paragraphs (0001-0004) which discloses the use of an ink receiving layer to make a card.)**

f. Yamaoka and Aoki are analogous art because they are from the same field of endeavor which is transferring an ink receiving layer unto a molded product. At the time of invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Yamaoka and Aoki before him or her, to modify the teachings of Yamaoka with the teachings of Aoki for the benefit of making a card that can be easily printed on by an ink jet printer. The motivation for doing so would have been to allow many businesses to order mass produced cards which then can be printed on on-site. Therefore, it would have been obvious to combine Yamaoka and Aoki to obtain the invention as claimed in claim 1.

g. With respect to claim 1, the combination of Yamaoka and Aoki do not teach wherein the ink receiving layer is a plurality of ink receiving layers arranged in a two dimensional matrix.

h. However, Williams teaches an in mold decoration process which includes an indexing machine to move a plurality of ink receiving layers (exposed surface [68] of the labels [14]) which are in a spaced relationship. **(See abstract and figures 1-2).**

vii. Williams, Yamaoka, and Aoki are analogous art as they are in the same field of endeavor which is decorating molded articles in an injection

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molding process. It would have been obvious to one having the ordinary skill in the art to combine the teachings of Williams with the teachings of Yamaoka/Aoki for the benefit of using a continuous process. The use of the indexing machine will allow the process to be automated and allow for a large number of ink receiving layers to be decorated.

3. In claim 2 Yamaoka does not explicitly teach wherein said ink receiving layer is formed of a heat-curable hydrophilic resin.

i. However, Aoki teaches wherein said ink receiving layer is formed of a heat-curable hydrophilic resin. **(See claim 1 disclosing the use of a heat curable hydrophilic resin.)**

j. Yamaoka and Aoki are analogous art because they are from the same field of endeavor which is transferring an ink receiving layer unto a molded product. At the time of invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Yamaoka and Aoki before him or her, to modify the teachings of Yamaoka with the teachings of Aoki for the benefit of using a hydrophilic resin as the ink receiving layer to allow printing on the card post production with a water based ink. The motivation for doing so would have been to allow the use of water based inks; as water based inks are common in ink-jet printers. Therefore, it would have been obvious to combine Yamaoka and Aoki to obtain the invention as claimed in claim 2.

4. In claim 3 Yamaoka teaches adding an anchor **(adhesive)** layer for enhancing air tightness of said ink receiving layer to said card base is pre-formed on said ink receiving

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layer . **(See paragraph [0003] and drawing 1 disclosing part number (5) which is an adhesive and added prior to molding.)**

5. In claim 5 Yamaoka teaches wherein said printing is executed by an ink-jet printer. **(See claim 1 and paragraph [0011] disclosing the use of an ink jet printer to print.)**

6. In claim 6 Yamaoka does not explicitly teach adding a step of covering the surface of said ink receiving layer with a cover layer after printing is applied to said ink receiving layer.

k. However, Aoki teaches adding a step of covering the surface of said ink receiving layer with a cover layer after printing is applied to said ink receiving layer. **(See paragraph [0010] disclosing the use of a cover layer on top of the printed layer.)**

l. Yamaoka and Aoki are analogous art because they are from the same field of endeavor which is transferring an ink receiving layer unto a molded product. At the time of invention, it would have been obvious to the applicant being one of ordinary skill in the art, having the teachings of Yamaoka and Aoki before him or her, to modify the teachings of Yamaoka with the teachings of Aoki for the benefit of using a resin to cover the just printed ink layer in order to protect the decoration from abrasions. The motivation for doing so would have been to extend the useful life of the printed decoration. Therefore, it would have been

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obvious to combine Yamaoka and Aoki to obtain the invention as claimed in claim 6.

Response to Arguments

3. Applicant's arguments filed September 29, 2009 have been fully considered but they are not persuasive and/or moot in view of new grounds of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMJAD ABRAHAM whose telephone number is (571)270-7058. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AAA

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791